

RCA is Green ! RCA is Beautiful !



I ♥ RCA

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RCA is Green ! RCA is Beautiful !

RCA Regional Office
www.rcaro.org

*RCA is the Future!
The Future is Ours!*



RCA Regional Office

<http://www.rcaro.org>



What is the RCA?



The RCA is a regional nuclear cooperative agreement in Asia and the Pacific established in 1972 under the aegis of the International Atomic Energy Agency (IAEA).

- *The full name of the RCA is Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology for Asia and the Pacific.*

RCA Member States



At present, 17 States in Asia and the Pacific region (IAEA Member States) joined in RCA as Member States.

Australia · Bangladesh · China · India · Indonesia · Japan · Korea · Malaysia · Mongolia · Myanmar · New Zealand · Pakistan · The Philippines · Singapore · Sri Lanka · Thailand · Viet Nam

What RCA has?



The RCA has,

- a positive history of remarkable accomplishment
- a dedicated willingness to serve for the benefit of the region
- a good potential to solve the problems that the region faces.

Advanced nuclear technologies have distinctive advantages economically, environmentally and expediently compared to the conventional technologies.



▲ IAEA Headquarters in Vienna

What are the IAEA/RCA Projects

IAEA is mostly funding RCA projects. IAEA is also supporting RCA project formulation, implementation and evaluation. Therefore, RCA projects are generally called IAEA/RCA projects.

What is the Strategic Goal of IAEA's Technical Cooperation (TC)?

The strategic goal of the IAEA's technical cooperation is to increasingly promote tangible socio-economic impact of the Member States and the Region.

Thematic Sectors

RCA projects are carried out by several Thematic Sectors.

- Agriculture (Agricultural application of nuclear technologies)
- Health (Medical and healthcare application of nuclear technologies)
- Industry (Industrial application of nuclear technologies)
- Environment (Environmental application of nuclear technologies)
- Energy (Assessment of the role of nuclear power and other energy options in competitive electricity market)
- Research Reactor (Improvement of research reactor operation and utilization)
- Radiation Protection
- ENO (Electronic networking and outreach for RCA information flow and distance learning)

Lead Country

Each Thematic Sector has a Lead Country (LC) and Assisting Lead Countries (ALC) when required. The Lead Country takes the lead in the upstream work for project formulation and plays an initiative role in implementation.

- Agriculture: China
- Health: Japan
- Industry: India
- Environment: New Zealand
- Energy/Research Reactor: Korea
- Radiation Protection: Australia



What are the IAEA/RCA Projects for 2003-2004?

I. Agriculture

1. Restoration of Soil Fertility and Sustenance of Agriculture Productivity
2. Production of Foot and Mouth Disease (FMD) Antigen and Antibody ELISA Reagent Kit
3. Development of Better Genotypes of Food and Oil Crops and Pulses
4. Better Management of Feeding and Reproduction of Cattle
5. Application of Food Irradiation for Food Security, Safety and Trade

II. Health

1. Strengthening Medical Physics in Asia and the Pacific Region
2. Low-Dose-Rate (LDR) and High-Dose-Rate (HDR) Brachytherapy in Treating Cervical Cancer
3. Distance Assisted Training (DAT) in Radiation Oncology
4. Distance Assisted Training (DAT) for Nuclear Medicine Technicians
5. Management of Liver Cancer using Trans-arterial Radio-conjugate Therapy
6. Treatment with Unsealed Radioactive Source: Radio-synovectomy
7. Osteoporosis and Serum Turn Over by Radio-immunoassay (RIA)

III. Environment

1. Improved Information of Urban Air Quality Management in the RCA Region
2. Isotope Techniques for Groundwater Contamination Studies in the Urbanized and Industrial Areas
3. Enhancing the Marine Coastal Environment
4. Investigating Environment and Water Resources in Geothermal Areas
5. Use of Isotopes in Dam Safety and Dam Sustainability
6. Improving Regional Capacity for Assessment, Planning and Responding to Environmental Emergencies

IV. Industry

1. Diagnostics and Optimization in the Petro-Chemical Industry
2. Optimization of Materials in the Industry by using On-line Bulk Analysis Techniques
3. Non-Destructive Testing and Evaluation
4. Modification of Natural Polymers through Radiation Processing

V. Energy

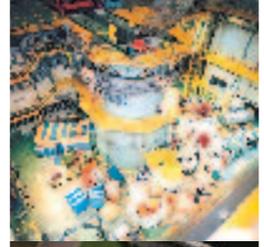
1. Assessment of the Role of the Nuclear Power and Other Energy Options in Competitive Electricity Markets

VI. Research Reactor

1. Improvement of Research Reactor Operation and Utilization

VII. Radiation Protection

1. Harmonization of Radiation Protection





Opening of the RCA Regional Office in Korea in March 2002 ▲
National RCA Representatives touring of KAERI Research Facilities ▲▲

RCA Regional Office

RCA Regional Office is a vehicle representing all RCA Member States.

Missions

- To increase RCA Awareness
- To promote additional Partnerships for RCA Program

More specifically,

- To pro-actively seek out opportunities for the RCA to participate in projects being formulated and designed by major regional and international donors, including international agencies
- To negotiate and secure contracts for income generating activities to provide supplementary funding for RCA projects, including the fund of the Director's position at the RCA Regional Office
- To promote the application of nuclear techniques to assist in addressing regional and national problems
- To implement the directives of the RCA Member States, in particular, to support developing and formulating new project proposals from the RCA Member States in liaison with the relevant Lead Countries, and
- To provide regional visibility for the RCA at regional and national forum level and to develop future RCA strategies and missions in cooperation with the RCA Member States

Progress for the Establishment

- In 1978, the need to have an RCA Office in the region was first mentioned at an RCA Representatives meeting in Vienna. However, it was considered that the level of RCA program was too small to warrant such office in the region.
- In 1997, at the 19th Meeting of National RCA Representatives in Myanmar, RCA Member States recommended to have an RCA Regional Office in the region in order to enhance RCA ownership by the Member States.
- In 2000, at the 22nd Meeting of National RCA Representatives in India, Korea offered to host the RCA Regional Office when established in Korea. RCA Member States supported it.
- In 2001, at the 23rd Meeting of National RCA Representatives in Bangladesh, the RCA Member States in principle agreed the establishment of the RCA Regional Office in Korea.
- In September 2001, at the 30th RCA General Conference Meeting in Vienna, RCA Member States formally agreed the establishment of the RCA Regional Office in Korea.
- On 27 March 2002, the RCA Regional Office officially opened in Daejeon, Korea on the occasion of the 30th Anniversary of the RCA Agreement and the 24th Meeting of the National RCA Representatives in Korea.
- In September 2002, the 31st RCA General Conference Meeting in Vienna adopted the Working Paper on the Establishment of the RCA Regional Office (RCARO) in Korea.
- In September 2003, an RCA General Conference Resolution on the Establishment and Management of the RCA Regional Office in Korea adopted.



Advisory Committee

An Advisory Committee was formed in March 2002 to give advice to the RCA Regional Office. Members are the National RCA Representatives of Australia, Bangladesh, China, India, Korea and the IAEA/RCA Coordinator. The Advisory Committee provides advice mainly on the legal provisions and new programs that the RCA Regional Office initiates.

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1. 24th Meeting of National RCA Representatives in Korea in March 2002
2. IAEA Director General (M. ElBaradei) congratulates RCA Exhibition during IAEA General Conference in Vienna in September 2001
3. 30th RCA General Conference Meeting in Vienna in September 2001
4. Members of the Advisory Committee (Interim) of the RCA Regional Office

Inauguration of the RCA Regional Office

On 27 March 2002, the RCA Regional Office was officially inaugurated at Daejeon, Korea adjacent to the Korea Atomic Energy Research Institute. Representatives from the RCA Member States and from IAEA as well as from the host government and also representatives from many regional and international organizations celebrated the opening.

Organization of the RCA Regional Office

The Director is responsible for the general operation and management of the Office. Reporting directly to the Director, the Program Officer and the Administration Officer are responsible for all the program activities and administration. A web-master is responsible for operation of the Internet homepage of the Office. Temporary staff will be recruited from the RCA Member States in order to support Office activities.



▲ RCA Regional Office Staff

New Programs of the RCA Regional Office

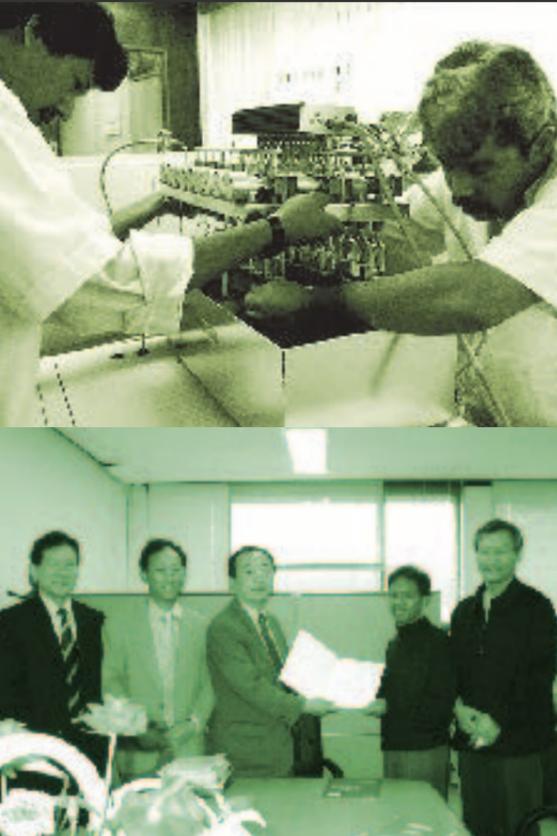
Several new programs are being implemented by the RCA Regional Office in order to support RCA Member States in their capability building and also for nuclear knowledge preservation endeavors.

- RCA Post-doctoral Fellowship Training Program
- RCA/KAIST Master's Degree Courses
- RCA/KOICA Nuclear Medicine Internship Training Program

Additional initiatives are being planned by the RCA Regional office.

- *Upgrading RCA Information Flow*
- *Korean Expert Missions to RCA Member States*
- *Environmental Radiation Monitoring Networking in the Region*
- *Medical Equipment Service Program, and so on.*





RCA Post-doctoral Fellowship Training Program

Objectives

- To preserve necessary nuclear knowledge through on-the-project participation in Korea's key nuclear R&D projects by competent nuclear scientists from the RCA Member States
- To contribute to the socio-economic development of the RCA Member States through the ample use of nuclear technology
- To support national endeavors to develop the human resources of the RCA Member States in nuclear fields

Areas

- Advanced reactor technology
- Nuclear fuel technology
- Radioactive waste management technology
- Nuclear safety improvement
- Radiation protection
- Radioisotope production & radiation application technology
- Radio-therapeutics
- Basic nuclear sciences such as accelerator technology

Qualifications

Senior level scientists and/or engineers having Ph.D. or Sc.D. degrees in nuclear related field and wish to complete post-doctoral courses through practical R&D project participation.

Host Organizations

Major nuclear related institutes in Korea responsible for national long-term R&D projects and regulatory functions such as,

- Korea Atomic Energy Research Institute (KAERI)
- Korea Institute of Nuclear Safety (KINS)
- Korea Electric Power Research Institute (KEPRI)
- Korea Institute of Radiological & Medical Sciences (KIRAMS)

- The host organizations will provide the fellowship trainees round air-tickets and monthly living expenses and will cover medical insurance during their stay at the host organizations.

2002 Program

A total of 19 fellowship trainees from 7 RCA Member States have been attached to various R&D projects in Korea.

The major R&D projects in which the fellowship trainees have been attached are neutron activation analysis, nuclear and radiochemistry, food preservation and processing by radiation, proliferation resistant fuel development, risk management, advanced research reactor fuel development, assessment of the radiation damage of materials, radioisotopes and radiation source development, development of functional materials for synthesis using radiation, development of advanced spent fuel management technology, development of low energy proton accelerator and ion beam applications, and the development of regulatory technology for radiation safety.

RCA / KAIST Master's Degree Courses



▲ KAIST, Daejeon

Objectives

- To develop leading scientists and engineers in nuclear energy and quantum engineering fields
- To develop leading nuclear energy policy makers who will work and/or assist their respective governments in establishing nuclear research and development policies

Courses

- Nuclear Energy and Quantum Engineering Course
- Nuclear Energy Policy Course

Qualifications

- For Nuclear Energy and Quantum Engineering Course, young scientists and engineers from the RCA Member States who wish to complete graduate course (Master's degree) on nuclear and quantum engineering.
- For Nuclear Energy Policy Course, either nuclear engineers or technocrats who are presently undertaking or will participate in national nuclear policy establishment work in their government.
 - The applicants should also meet the KAIST admission criteria, such as language efficiency and so on.

Host Institution

Korea Advanced Institute of Science and Technology (KAIST)
<http://www.kaist.edu>

KAIST will exempt the course participants from application fees and tuition. The host institution will also provide the participant with a round air-ticket, room and board, medical insurance and incidentals.

RCA/KOICA Nuclear Medicine Internship Training Course - Medical Applications and Usage of Cyclotron and RI -

Objectives

- To train medical professionals in nuclear medicine with particular emphasis on the recent practices of nuclear medicine
- To train medical professionals in medical applications of radioisotopes produced from medical cyclotron
- To intimate medical professionals the usage of PET (Positron Emission Tomography) and SPECT (Single Photon Emission Computed Tomography)
- To train medical professionals in radiation therapy

Scopes

- Principles of PET technologies and practice in nuclear medicine
- Principles in molecular imaging
- Practice with experts in myocardial and brain SPECT
- Principles and practice in therapy using radioisotopes
- Radioisotope production and application of cyclotron technology

Qualifications

Basically, medical doctors in nuclear medicine or internal medicine with minimum of 3 years experience.

Number of Internship Trainees

15 medical professionals from the RCA Member States.

Host Institution

Korea Institute of Radiological & Medical Sciences (KIRAMS) and its Korea Cancer Center Hospital (KCCH) (www.kcch.re.kr) in cooperation with the Korea International Cooperation Agency (www.koica.go.kr).

- The host will provide the participants round air-tickets and daily substance allowances. The host will also cover medical insurance for the participants during their stay in Korea.



2003-04 Work Plan of the RCA Regional Office

I. Building Operational Basis of the Regional Office

- 1) Concluding Legal and Administrative Matters
 - a. To adopt an RCA Resolution on the Establishment and Operation of the RCA Regional Office by the RCA General Conference Meeting
 - b. To conclude related guidelines related to the Operation and Management of the RCA Regional Office
- 2) Operation of the Advisory Committee (Interim) of the RCA Regional Office
- 3) To Encourage Attachment of IAEA Fellow(s) to the RCA Regional Office or Staff Recruitment from RCA Member States

II. Participation in the Upstream Work for 2005-06 IAEA/RCA Program

- 1) To prepare a 'Position Paper' for the RCA Regional Office to suggest future RCA programs, particularly the 2005-06 projects

III. Nuclear Knowledge Preservation and Enhancement Program

- 1) Post-doc Fellowship Training Program
- 2) Master's Degree Courses
- 3) Nuclear Medicine Internship Training Program

IV. RCA Awareness Increasing Program

- 1) To improve effective Information Flow of RCA matters through Upgrading RCA Regional Office Homepage (www.rcaro.org)
- 2) RCA Information Kit Production
- 3) Briefing Meetings with RCA related Groups (Mission Representatives, et al.)
- 4) Program Promotion Meetings with RCA project participants of Member States
- 5) Support RCA Project Lead Country Coordinators' Brainstorming Meeting

V. Partnership Increasing Program

- 1) Cooperation with UNESCAP, et al
- 2) Cooperation with UNU and other Regional/International Organizations
- 3) Use of Experts of the RCA Member States to assist the RCA Regional Office

VI. Internal Provisions

- 1) Operation of the Technical Advisory Committee for the RCA Regional Office
- 2) Use of International Technical Expert for Consultant Purpose of the RCA Regional Office
- 3) Reinforced Staffing of the RCA Regional Office (including a Web-master)
- 4) Language Training Course for the RCA Fellowship Trainees



